

## BIBLIOGRAPHICAL NOTICES.

*Recherches sur les Crinoides du Terrain Carbonifère de la Belgique.*  
Par L. DE KONINCK et H. LE HON. Bruxelles. 1854.

THIS volume, which has been reprinted from the Memoirs of the Royal Academy of Belgium, embodies the researches of the authors on the crinoidal remains which have been found in the carboniferous limestone of that country. One of the authors, Prof. de Koninck, has long been known as an acute and zealous palæontologist, and his work, published in 1842, 'On the Fossils of the Mountain Limestone of Belgium,' was an important addition to geological science, affording us another term of comparison with the British species, as well as the affinities and distribution of these upper palæozoic forms.

At the time of publication of the former work, although containing descriptions of 500 species from this deposit, only fifteen species of Crinoids were then recognized. Since that period, by more active researches, and under very favourable circumstances, a large number of specimens have been obtained, from which the authors have eliminated, described, and fully illustrated in this work no less than fifty-three species from Belgium alone. The conditions under which some portion of the carboniferous series of Belgium occurs, either as decomposed limestone or of an argillaceous character, have permitted the extraction of many specimens in a perfect state of preservation. By this means the authors have been enabled to study with more precision and detail than is usual in limestone fossils, the structure of certain little-known species of Crinoids, and have further been enabled to confirm or modify the previously received opinions, as well as suggest others, respecting the organization and probable habits of these singular and interesting animals. The fifty-three species belong to eleven genera, of which four are new, viz. *Mespilocrinus*, *Graphiocrinus*, *Forbesiocrinus* and *Lageniocrinus*. According to the opinion of Prof. de Koninck, the carboniferous limestone series of Belgium is divided into an upper and lower; the former, that of Tournay, being characterized by the *Spirifer Sowerbyi*, Fischer; the latter, that of Visé, by the presence of *Productus giganteus*, Mart., *P. striatus*, Fisch., and *Spirifer striatus* and *S. bisulcatus*. This distribution of species does not, however, accord with the notions of some geologists. Taking however the facts as stated by Prof. de Koninck with regard to the distribution of the species of Crinoids, nine belong exclusively to the lower or *Productus giganteus* horizon; these are—and we quote them for the purpose of further investigation in this country—*Cyathocrinus mammillaris*, *Poteriocrinus calyx*, *P. M'Coynanus*, *P. Phillipsianus*, *P. conoideus*, *Rhodocrinus uniarticulatus*, *Mespilocrinus granifer*, *Actinocrinus tricuspidatus*, *Lageniocrinus seminulum*. The first three species have also been found in England. The remaining forty-four species belong to the superior horizon of *Spirifer Sowerbyi*, and are characteristic of this stage in Belgium. Twenty-four of these latter are also found in the British deposits.

The prefatory matter contains an historical introduction on the

Crinoidea, in which the authors give a general review of the phases in the history of this family, and a summary of the various opinions as to their affinities and classification which have been suggested by the principal writers on the subject. A valuable list is also given, arranged in chronological order, of the works, memoirs and papers of the naturalists who have alluded to the Crinoidea, from the 'De Natura Fossilium' of Agricola in 1558 to the present time, and which includes no less a number of publications than 346! One would have little thought that this almost palæozoic dynasty should have met with so many complimentary inquiries; fortunately for them, their "*histoire*" has been protected by better conservators than those in one of our public departments, where, it has been stated, some valuable historical documents have been carelessly disposed of by those who had them in charge!

If however the Crinoidea have had a copious literature, they have not been so fortunate in their generic names, as is evidenced by the use of such words as Gilbertsocrinus, Hallocrinus, and Woodocrinus, a system commenced by Phillips, adopted by D'Orbigny, and followed by De Koninck. Surely those naturalists who have studied and deciphered the organic structure of these remains, and been thus led to regard these forms as distinct from the cognate genera, might have suggested generic names more consistent with, and expressive of, their true characters, than many of the mongrel words that have been assigned to members of this family. No wonder the classical scholar repudiates the natural-history nomenclaturist or modern wordmonger for fossil genera and species. Following out the idea as above noticed, we should not be surprised to hear of some new American Crinoid with the happy cognomen of *Unclesambocrinus*.

In other departments of palæozoology it would not more excite our astonishment to hear of such names as Grayoconcha, Gouldornis, or Owenotherium, terms which, if unappropriated at present, are quite at the service of the incipient palæontologist who despairs of finding explicative terms for generic groups. Nor is the species-maker blameless. To say nothing of the goodnatured intent of those who name species and varieties after great men and their friends—and indeed we wonder we have not yet heard of a *Trilobites Albertianus*,—we think it a proper subject for animadversion, that the species already rejoicing in good personal appellations should, on account of their less worthy relations, have their patronymic degraded by the prefix "*sub*," as we see in the *Terebratula sub-Bentleyi*, *Ammonites sub-Bakeria*, &c.

In the chapter on the general considerations of the Crinoidea, the authors have given some details respecting the classification, structure and organization of these bodies, and have discussed the principles of nomenclature as applied to the different parts, as well as suggested a more easy and consistent notation for the different pieces forming the calyx or terminal part.

Appended to the memoir is a description of a new genus of Cri-

noids, recently obtained by a zealous collector, Mr. Wood, from the mountain limestone near Richmond in Yorkshire, and which, from the perfection of the specimens obtained, leaves little to desire respecting its illustration. This genus, *Woodocrinus*, is allied to *Cyathocrinus* and *Forbesiocrinus*, differing from the latter in possessing sub-radial pieces, and from the former in having five of these plates instead of four. Another peculiarity is found in the stem, which, unlike most of the Crinoids, is very slender at the commencement and gradually increases in diameter with its length.

Prof. de Koninck is at present engaged on a general treatise of the Crinoidea, and has recently visited this country for the purpose of obtaining specimens and examining the collections in order to perfect his work; therefore any assistance connected with this subject would not be rendered in vain; for although two valuable works are in progress, those of Mr. Austin and M. d'Orbigny, there is still room for further researches on these singular lilyform creatures, which swarmed so abundantly in the earlier seas, and whose almost entire absence in the present ocean is probably compensated for, or at least represented by, the higher members of the same family of Echinoderms.

*A Lecture on the Geological History of Newbury, Berks.*  
By T. RUPERT JONES, F.G.S.

This pamphlet, containing the substance of a lecture delivered before the members of a scientific institute, has however more than a local interest. In treating of the physical history of a limited district, the author has brought forward certain geological truths in a clear and intelligible manner. Popular lectures are not always satisfactory, partly from the *ad captandum* style, sometimes from a discursive array of undigested facts, and frequently from the lecturer speaking *at* and not *to* the audience.

The value of elementary instruction depends upon the correctness of the facts stated, and the clearness and methodical manner with which they are enunciated. In this respect Mr. Jones has been successful, by arranging the leading principles of geological science in a concise and common-sense manner. Geology is treated as a history, the records of which are to be sought for beneath the surface, in the constitution of the soils and subsoils of the district, in the beds of earth and stone, which compose the frame-work of hill and valley, and constitute, as it were, the many-leaved stony volume of the earth's primæval history. Cuvier long ago remarked, that the geologist was an antiquary of a new order. Just as the antiquary finds materials for history in the many buildings of towns and cities, whether perfect or in ruins, which have been erected for ecclesiastical, military or civil purposes, at different periods, in distinct styles, of various materials, and often rich with sculpture and inscriptions,—so the geologist examines the many different rocks and soils of which